

**ABSTRACT OF THE DISCLOSURE**

Random sequence oligonucleotides that have antiviral activity are described, along with their use as antiviral agents. In many cases, the oligonucleotides are greater than 40 nucleotides in length. Also described are methods for the prophylaxis or treatment of a viral infection in a human or animal, and a method for the prophylaxis treatment of cancer caused by oncoviruses in a human or animal. The methods typically involve administering to a human or animal in need of such treatment, a pharmacologically acceptable, therapeutically effective amount of at least oligonucleotide that does not act by a sequence complementary mode of action.